

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
22 December 2005 (22.12.2005)

PCT

(10) International Publication Number
WO 2005/121204 A2

(51) International Patent Classification⁷: C08G 63/00

(74) Agents: OKABE, Masao et al.; No. 602, Fuji Bldg., 2-3,
Marunouchi 3-chome, Chiyoda-ku, Tokyo 1000005 (JP).

(21) International Application Number:
PCT/JP2005/010996

(22) International Filing Date: 9 June 2005 (09.06.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2004-174788 11 June 2004 (11.06.2004) JP

(71) Applicant (for all designated States except US): CANON
KABUSHIKI KAISHA [JP/JP]; 3-30-2, Shimomaruko,
Ohta-ku, Tokyo, 1468501 (JP).

(72) Inventors; and

(75) Inventors/Applicants (for US only): KENMOKU,
Takashi [JP/JP]; c/o CANON KABUSHIKI KAISHA,
3-30-2, Shimomaruko, Ohta-ku, Tokyo, 1468501 (JP).
FUKUI, Tatsuki [JP/JP]; c/o CANON KABUSHIKI
KAISHA, 3-30-2, Shimomaruko, Ohta-ku, Tokyo,
1468501 (JP). MIHARA, Chieko [JP/JP]; c/o CANON
KABUSHIKI KAISHA, 3-30-2, Shimomaruko, Ohta-ku,
Tokyo, 1468501 (JP). KUSAKARI, Aiko [JP/JP]; c/o
CANON KABUSHIKI KAISHA, 3-30-2, Shimomaruko,
Ohta-ku, Tokyo, 1468501 (JP). YANO, Tetsuya [JP/JP];
c/o CANON KABUSHIKI KAISHA, 3-30-2, Shimo-
maruko, Ohta-ku, Tokyo, 1468501 (JP).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG,
KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM,
PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM,
SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN,
YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished
upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: POLYHYDROXYALKANOIC ACID HAVING VINYL, ESTER, CARBOXYL OR SULFONIC ACID GROUP AND
PRODUCING METHOD THEREFOR

(57) Abstract: The invention is to provide a novel polyhydroxyalkanoate having a reactive function group within the molecule and
a producing method therefor. In a polyhydroxyalkanoate containing a unit having a vinyl group in a side chain, such vinyl group is
utilized for deriving a polyhydroxyalkanoate comprising a carboxyl group or a unit having an amide group and a sulfonic acid group.

WO 2005/121204 A2